

08/147,038



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Serial Number	Filing Date	First Named Inventor	Attorney Docket No.
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08/147,038 11/04/93 FOSS

R 628.30050CX1

EXAMINER

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2502

ART UNIT PAPER NUMBER

17

DATE MAILED:
01/06/94

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

This application has been examined Responsive to communication filed on _____ This action is made final.
A shortened statutory period for response to this action is set to expire 3 month(s), _____ days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. Notice of References Cited by Examiner, PTO-892.
2. Notice of Draftsman's Patent Drawing Review, PTO-948.
3. Notice of Art Cited by Applicant, PTO-1449.
4. Notice of Informal Patent Application, PTO-162.
5. Information on How to Effect Drawing Changes, PTO-1474.
6.

Part II SUMMARY OF ACTION

1. Claims 1-17 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
2. Claims _____ have been cancelled.
3. Claims _____ are allowed.
4. Claims 1-17 are rejected.
5. Claims _____ are objected to.
6. Claims _____ are subject to restriction or election requirement.
7. This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. Formal drawings are required in response to this Office action.
9. The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.54 these drawings are acceptable; not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
10. The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been approved by the examiner; disapproved by the examiner (see explanation).
11. The proposed drawing correction, filed _____, has been approved; disapproved (see explanation).
12. Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has been received not been received been filed in parent application, serial no. 07/680,747 filed on 04/05/91.
13. Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. Other

EXAMINER'S ACTION

Art Unit 2502

1) The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested:

DYNAMIC RANDOM ACCESS MEMORY USING IMPERFECT ISOLATING
TRANSISTORS.

2) The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

3) A person shall be entitled to a patent unless --

3) (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4) (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5) Claims 1-17 are rejected under 35 U.S.C. § 102(e) as being clearly anticipated by CHEN Y. WANG (4,991,142).

a) WANG discloses a dynamic random access memory (DRAM) as claimed in claims 1,6,7,10 and 16, comprising :

a plurality of bit storage capacitors (column 1, lines 10-17);

a folded bit line comprises of a complementary pair bit lines (Fig.1, Bit lines in row);

a sense amplifier (Fig.1, 26,28);

high resistance controllable current leakage imperfect isolating means (Fig.1, Isolators 14, Isolator control ϕ_3);
means for applying an enabling voltage for causing effective current to leak through the imperfect isolating means (Fig.1, Enabling Voltage ϕ_3);

means for enabling sense amplifier (Fig.1, ϕ_5 , ϕ_6);
means for disabling isolating means (Fig.1, ϕ_3);
power supply means for providing full high and full low logic level voltage (Fig.1, V_{ss}, V_{cc});

a pair of field effect transistors connected to power supply, and means for providing restore and sense signals to gates of these FETs (Fig.1, FET 34, FET 32, ϕ_6 , ϕ_5).

b) As to claims 2,4 and 17, WANG shows isolating means including a pair of field effect transistors (Fig.1, 14).

c) As to claims 3 and 5, WANG shows disabling means comprises a voltage source (ϕ_3).

d) As to claims 8,9,14,15, WANG shows sense amplifier in figure 1, RT1, RT2, SA3, SA4 FETS 34,32 and ϕ_6 , ϕ_5).

e) As to claims 11-13, WANG shows DRAM comprises a plurality of bit lines and associated with sense amplifiers (see figure 1, Bit Lines 10, 12).

6) Claims 1-17 are further rejected under 35 U.S.C. § 102(b) as being anticipated by MIYAMOTO et al (4,780,850 and 4,803,663).

MIYAMOTO et al discloses a DRAM as claimed in claims 1-17 (

Art Unit 2502

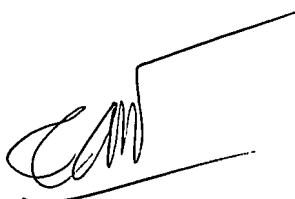
see U.S Patent No. 4,780,850 figure 12, Isolators Q14, Q15; Isolator control TR; Sense Amplifier Q1a, Q2a, Q3a, Q4a; Power Sources Vcc, Vss; FETs QSNa, QSPa; Enabling Signals SNa, SPa; and see also U.S patent No. 4,803,663, figure 1, Isolators QT3, QT4; Sense Amplifier SA; Power Source Vcc, Vss; FETs QN5, QP5; Enabling Signals SN, SP1).

7) Applicant's arguments filed November 4th 1993 have been fully considered but they are not deemed to be persuasive.

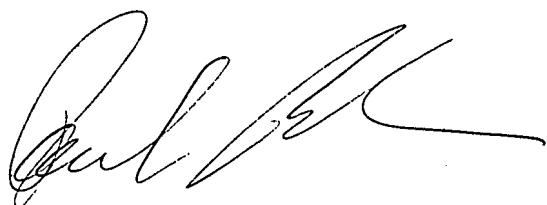
The newly added " *means for applying an enabling voltage for causing effective current to leak through the imperfect isolating means* " is found in WANG as indicated in paragraph (5) above. The remain claims are still rejectable under prior art of WANG and MIYAMOTO et al.

8) Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAN DINH whose telephone number is (703) 308-4859.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.



T.D
January 03, 1994



PAUL GENSLER
EXAMINER
GROUP ART UNIT 252